

Appendix D

Public Hearing Notice and Summary of Public Comments and Cabinet Responses Proof of Publication

**NOTICE OF PUBLIC HEARING
KENTUCKY DIVISION FOR AIR QUALITY
TO REVISE KENTUCKY'S STATE IMPLEMENTATION PLAN AND
AIR QUALITY REGULATIONS**

The Kentucky Environmental and Public Protection Cabinet will conduct a public hearing on October 21, 2005, at 10:00 a.m. (ET) in the Conference Room of the Division for Air Quality, 803 Schenkel Lane, Frankfort, Kentucky. This hearing will be held to receive comments on proposed revisions to Kentucky's State Implementation Plan (SIP) and Air Quality Regulations that address the federal NOx SIP Call.

401 KAR 51:150. NOx requirements for stationary internal combustion engines.

401 KAR 51:160. NOx requirements for large utility and industrial boilers.

401 KAR 51:150 is proposed to require 82% NOx emission controls for large internal combustion engines. 401 KAR 51:160 is amended in order to exempt fluidized catalytic cracking units (FCCU) CO boilers from being subject to the NOx SIP Call. Both regulations are proposed for inclusion into the Kentucky SIP.

This hearing is open to the public and all interested persons will be given the opportunity to present testimony. To assure that all comments are accurately recorded, the Division requests that oral comments presented at the hearing are also provided in written form, if possible. Written comments must be received by October 31, 2005, to be considered part of the hearing record. The Environmental and Public Protection Cabinet does not discriminate on the basis of race, color, national origin, sex, age, religion, or disability and provides, upon request, reasonable accommodation including auxiliary aids and services necessary to afford an individual with a disability an equal opportunity to participate in all services, programs, and activities.

The full text of the SIP submittal and the proposed regulations is available for public inspection and copying during regular business hours (8:00 a.m. to 4:30 p.m., ET) at the locations listed below. Any individual requiring copies may submit a request to the Division for Air Quality in writing, by telephone, by FAX, or e-mail. Requests for copies should be directed to a contact person. In addition, an electronic version of the complete proposed SIP revision can be downloaded at: http://www.air.ky.gov/homepage_repository/Public+Hearings.htm. The proposed regulations can be accessed at: <http://www.lrc.state.ky.us/KAR/TITLE401.htm>.

CONTACT PERSONS: Martin Luther, Program Planning and Administration Branch, and Gerry Ennis, Regulation Development Section, Division for Air Quality, 803 Schenkel Lane, Frankfort, Kentucky 40601. The phone number is (502) 573-3382. The FAX number is (502) 573-3787. E-mail: Martin.Luther@ky.gov and Gerry.Ennis@ky.gov.

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233 Birch St #2
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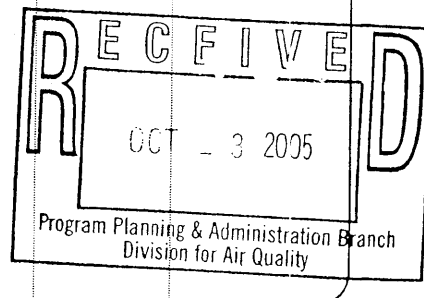
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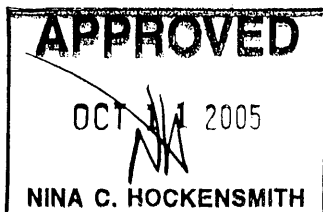
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1. **V-2005-117: DAVID BACH** appeals for a variance to reduce the required front yard from 300 feet to 200 feet in order to construct a residence in the Agricultural Tural (A-1) zone, on property located at 1885 Redd Road (Council District 12).
2. **V-2005-118: JASON BRICKER and CHRIS ORFIELD** appeal for a variance to reduce the required side yard from 3 feet to 0 feet in order to construct a house in a Medium-Density Residential (R-2) zone, on properties located at 207 and 209 Somerset Court (Council District 12).
3. **V-2005-119: CHRISTIAN and LYNN BRIDGEMAN** appeal for a variance to reduce the required side yard from 5 feet to 0 feet in order to construct a house in a Medium-Density Residential (R-2) zone, on property located at 207 and 209 Somerset Court (Council District 12).
4. **V-2005-120: FOX WALL COMPANY, INC.** appeals for a variance to reduce the required side yard from 5 feet to 0 feet in order to construct a house in a Medium-Density Residential (R-2) zone, on property located at 207 and 209 Somerset Court (Council District 12).
5. **C-2005-109: C & S RUMPHAL LAND ACQUISITION CO., LLC** appeals for a conditional use permit, granted by the Board of Directors, to construct a new 100,000 sq. ft. big box store in a Heavy Industrial (I-2) zone, on property located at 10000 Highway 101 (Council District 2).
6. **C-2005-93: LEXINGTON METHODIST BAPTIST CHURCH** appeals for a conditional use permit to expand the church (add a Sunday school building, storage building and rest room) in the Agricultural Rural (A-1) zone, on property located at 4030 Redd Road (Council District 12).
7. **C-2005-94: J.E. and DEBBY JOHNSON** appeal for a conditional use permit to offer adult child care for up to 12 children in a Single Family Residential (R-1C) zone, on property located at 610 Berestford Drive (Council District 8).
8. **C-2005-95: HOWARD PROPERTIES** appeal for a conditional use permit to expand the location of the K-3 Dayway Service business (20,000 sq. ft.) into the adjacent Agricultural Tural zone on the same property at 4368 Georgetown Road (Council District 12).
9. **C-2005-100: SPECTRUM CONTRACTING SERVICES INC.** appeals for a conditional use permit to construct a storage/warehouse space, including restrooms and a showering facility, on property located at 4000 Redd Road (Council District 12).
10. **C-2005-110: EX HILTY PARTNERS** appeal for a conditional use permit to construct a new 100,000 sq. ft. big box store in a Heavy Industrial (I-2) zone, on property located at 10000 Highway 101 (Council District 2).
11. **C-2005-111: DEBRA L. BRADY** appeals for a conditional use permit to construct a new 100,000 sq. ft. big box store in a Heavy Industrial (I-2) zone, on property located at 10000 Highway 101 (Council District 2).
12. **C-2005-115: DAN MOORE ON TOURS** appeals for a conditional use permit to construct a new 100,000 sq. ft. big box store in a Heavy Industrial (I-2) zone, on property located at 10000 Highway 101 (Council District 2).
13. **C-2005-116: MARILYN A. SWALEY** appeals for a conditional use permit to construct a new 100,000 sq. ft. big box store in a Heavy Industrial (I-2) zone, on property located at 10000 Highway 101 (Council District 2).

RESPONSE TO COMMENTS

Relating to

**A REVISION TO KENTUCKY'S STATE IMPLEMENTATION PLAN (SIP) THAT ADDRESSES THE
NOX SIP CALL**

KENTUCKY ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division for Air Quality

Public Hearing Conducted
October 21, 2005 - 10:00 A.M. (ET)
Kentucky Division for Air Quality Conference Room
803 Schenkel Lane
Frankfort, Kentucky 40601

March 2006

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PREFACE

The Environmental and Public Protection Cabinet, Division for Air Quality, conducted a public hearing on October 21, 2005, to receive comments on a proposed SIP revision that addressed the federal NO_x SIP Call. The hearing was held at the Division for Air Quality's conference room located at 803 Schenkel Lane, Frankfort, Kentucky.

This document presents a summary of all relevant non-regulatory comments submitted and the Cabinet's responses and is being submitted to the United States Environmental Protection Agency (U.S. EPA). It is also being provided to those individuals who submitted comments and to those public hearing attendees who indicated interest in receiving a copy of the document. Prominent advertisements of the hearing were published thirty days prior to the hearing in accordance with federal requirements (40 CFR 51.102).

Public hearing notices and announcement of availability of informational copies were distributed to over 900 individuals. Informational copies were kept on file for public inspection at all eight of the Division for Air Quality's regional offices, the Air Pollution Control District of Jefferson County, and the Fayette County, Hardin County, and Henderson County Clerks' office for at least thirty days prior to the public hearing.

The services of a court stenographer were secured and the comments are kept on file at the Division's offices in Frankfort, Kentucky. A list of all persons that provided oral and written comments on the non-regulatory aspects of this SIP revision during the public comment period and their affiliation is included in this document.

PERSONS ATTENDING PUBLIC HEARING

October 21, 2005

Division for Air Quality Conference Room
803 Schenkel Lane
Frankfort, Kentucky

PERSON and Title

AFFILIATION

No attendees.

The following representatives from the Kentucky Environmental and Public Protection Cabinet were present at the public hearing:

Gerry Ennis, Environmental Technologist III – Hearing Moderator
Sean Alteri, Environmental Control Supervisor
Martin Luther, Environmental Scientist II

Others Present:

Connie Sewell – Court Reporter

**PERSONS SUBMITTING TESTIMONY INTO THE PUBLIC HEARING RECORD
CONCERNING THE NON-REGULATORY PROVISIONS OF THE NOX SIP CALL
SIP REVISION**

October 21, 2005

<u>PERSON</u>	<u>AFFILIATION</u>	<u>TESTIMONY</u>
Kelly R. Carmichael, Manager NiSource, Inc.	For Columbia Gulf Transmission	Written

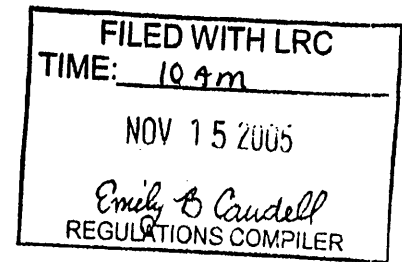
SUMMARY OF COMMENTS AND RESPONSES

(1) (a) COMMENT

The commenter indicates that Columbia has performed stack testing to evaluate whether its engines were above one (1) ton of NO_x per average ozone season day in 1997 and is planning to perform additional testing to understand conflicting test results. The commenter states “In the event that testing demonstrates that the engine emission factors result in emissions less than 1 ton per average ozone season day for the 1997 ozone season, Columbia requests that the engines be removed for the “Large NO_x SIP Call engine” category.” (*Kelly R. Carmichael, NiSource*)

(b) RESPONSE

The Cabinet acknowledges this comment. However, based on the Cabinet’s existing 1997 emissions inventory data, Columbia has engines that emitted more than one (1) ton of NO_x per average ozone season day in 1997.



1 ENVIRONMENTAL AND PUBLIC PROTECTION CABINET

2 Department for Environmental Protection

3 Division for Air Quality

4 (Amended After Comments)

5 401 KAR 51:150. NOx requirements for stationary internal combustion engines.

6 RELATES TO: KRS 224.10-100, 224.20-100, 224.20-110, 224.20-120, 40 C.F.R.

7 51.121, 51.122, 40 C.F.R. 78, 97, 42 U.S.C. 7401-7671q

8 STATUTORY AUTHORITY: KRS 224.10-100(5), 224.20-100, 224.20-110, 224.20-

9 120, 42 U.S.C. 7401-7671q

10 NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100(5) requires the
11 Environmental and Public Protection Cabinet to promulgate administrative regulations
12 for the prevention, abatement, and control of air pollution. Pursuant to the federal NOx
13 SIP Call, this administrative regulation provides for the regional control of nitrogen
14 oxides (NOx) emissions by establishing requirements for large stationary internal
15 combustion engines. This administrative regulation is not more stringent than the
16 federal mandate.

17 Section 1. Definitions. (1) "Affected engine" means any stationary internal
18 combustion engine or turbine that is:

19 (a) A Large NOx SIP Call Engine; or

20 (b) Another stationary internal combustion engine or turbine that is subject to NOx
21 control under a compliance plan pursuant to this administrative regulation.

1 (2) "Facility seasonal NOx 2007 tonnage reduction" means the total of the engine
2 seasonal NOx 2007 tonnage reductions attributable to all large NOx SIP Call engines of
3 an owner or operator.

4 (3) "Large NOx SIP Call Engine" means a stationary internal combustion engine
5 identified and designated in the NOx SIP Call engine inventory as emitting more than
6 one (1) ton of NOx per average ozone season day in 1997.

7 (4) "NOx potential to emit" means the maximum capacity of an engine to emit NOx
8 under its physical and operational design or applicable permit condition for a given
9 period of time. Any physical limitation on the capacity of a source's potential to emit an
10 air pollutant, including air pollution control equipment or combustion modification, shall
11 be treated as part of its design if the limitation is enforceable by the cabinet.

12 (5) "NOx SIP Call baseline period" or "baseline period" means the period beginning
13 May 1, 1997, and ending September 30, 1997, inclusive.

14 (6) "NOx SIP Call baseline period utilization" means the amount of work performed
15 by a NOx SIP Call engine during the baseline period in brake horsepower-hours (bhp-
16 hr).

17 (7) "NOx SIP Call engine inventory" means the NOx emission inventory, compiled by
18 the U.S. EPA, that includes:

19 (a) Technical amendments pursuant to 65 Fed. Reg. 11222, March 2, 2000; and

20 (b) The adjustment of the 2007 budget NOx control efficiency to eighty-two (82)
21 percent for large gas-fired engines pursuant to 69 Fed. Reg. 21603, April 21, 2004.

22 (8) "Past NOx emission rate" means the emission rate of an affected engine in
23 grams per brake horsepower-hour (g/bhp-hr), as determined by performance testing

1 consistent with the requirements of 40 C.F.R. Part 60, Appendix A. If such performance
2 test data are not available, the rate:

3 (a) Shall be the uncontrolled emission rate for Large NOx SIP Call Engines; or

4 (b) Shall be determined by the cabinet on a case-by-case basis, using appropriate
5 emission factors or data from the NOx SIP Call engine inventory.

6 (9) "Projected 2007 NOx tonnage reduction" means the projected NOx reduction in
7 tons during the 2007 control period, calculated as the difference between the 2007 base
8 emissions and the 2007 budget emissions. The Projected 2007 NOx tonnage reduction
9 may be corrected through an approved SIP revision.

10 (10) "Projected 2007 seasonal base NOx emissions" or "2007 base emissions"
11 means the projected uncontrolled NOx emissions, in tons, for the 2007 control period as
12 published in the NOx SIP Call Inventory. The 2007 base emissions may be
13 recalculated through an approved SIP revision.

14 (11) "Projected 2007 seasonal budget NOx emissions" or "2007 budget emissions"
15 means the projected controlled NOx emissions in tons, for the 2007 control period as
16 published in the NOx SIP Call Inventory. The 2007 budget emissions may be
17 recalculated through an approved SIP revision.

18 (12) "Projected 2007 Ozone Season utilization" or "2007 utilization" means the
19 projected amount of work during the 2007 control period performed by a NOx SIP Call
20 engine, calculated as the 1997 baseline utilization multiplied by the growth factor
21 assigned to that engine in the NOx SIP Call Inventory.

1 (13) "Projected NOx emission rate" means the projected emission rate in grams per
2 brake horsepower-hour after installation of controls on an affected engine or the Past
3 NOx emission rate if controls are not installed on an affected engine.

4 (14) "Projected operating hours" means the projected actual number of hours of
5 operation per ozone season for an affected engine.

6 (15) "Stationary internal combustion engine" means any internal combustion engine
7 of the reciprocating type that is either attached to a foundation at a facility or is designed
8 to be capable of being carried or moved from one location to another and remains at a
9 single site at a building, structure, facility, or installation for more than twelve (12)
10 consecutive months. Any engine or engines that replace an engine at a site that is
11 intended to perform the same or similar function as the engine replaced shall be
12 included in calculating the consecutive time period.

13 Section 2. Applicability. This administrative regulation shall apply to the owner or
14 operator of any Large NOx SIP Call Engine.

15 Section 3. Standard for Large NOx SIP Call Engines. On and after May 1, 2007,
16 an owner or operator of an affected engine shall not operate the engine during a control
17 period unless:

18 (1) The NOx emission rate for a Large NOx SIP Call Engine is reduced from the
19 Past NOx emission rate by at least eighty two (82) percent; or

20 (2) The owner or operator complies with the requirements in Section 4 of this
21 administrative regulation.

22 Section 4. Compliance Plan. On and after May 1, 2007, an owner or operator shall
23 not operate a Large NOx SIP Call Engine during the control period unless the owner or

1 operator complies with the requirements of a compliance plan or reduces NOx
2 emissions from that engine in accordance with Section 3(1).

3 (1) The compliance plan shall:

4 (a) Be approved by the cabinet;

5 (b) Include all affected engines at an individual facility, several facilities, or at all
6 facilities located in Kentucky that are under the control of the same owner or operator;

7 (c) Be submitted to the cabinet by May 1, 2006;

8 (d) Include credit for decreases in NOx emissions from Large NOx SIP Call Engines
9 in Kentucky due to NOx control equipment. The owner or operator shall also include
10 credit for decreases in NOx emissions from other affected engines in Kentucky due to
11 NOx control equipment that is not reflected in the 2007 Ozone Season Base NOx
12 Emissions in the NOx SIP Call Engine Inventory; ~~and~~

13 (e) Include credit for decreases in NOx emissions due to reductions from shifting
14 historic load capacity from an uncontrolled engine to a controlled engine, electric motor
15 or turbine. The owner or operator shall demonstrate to the satisfaction of the cabinet
16 that a quantifiable net reduction in NOx emissions has occurred or will occur due to a
17 direct shift of ozone season load capacity from an uncontrolled engine to a controlled
18 engine, electric motor or turbine; and

19 (f) [(e)] Provide the following information for each affected engine:

20 1. A list of affected engines subject to the plan that includes:

21 a. Engine manufacturer,

22 b. Engine model number,

23 c. Facility location address, and

1 d. Facility identification number;

2 2. The projected ozone season hours of operation and supporting documentation;

3 3. A description of the NOx emissions control installed, or to be installed, and
4 documentation to support the Projected NOx Emission Rates;

5 4. The Past and Projected NOx Emission Rates in grams per brake horsepower-
6 hour;

7 5. A numerical demonstration that the emission reductions obtained from all
8 affected engines included in the compliance plan will be equivalent to or greater than
9 the owner or operator's Facility Seasonal NOx 2007 Tonnage Reduction, based on the
10 difference between the Past NOx Emission Rate and the Projected NOx Emission Rate,
11 multiplied by the Projected Operating Hours for each affected engine, and considering
12 credit according to paragraph (d) of subsection (1); and

13 6. Provisions for monitoring, reporting and recordkeeping.

14 (2) The Projected NOx Emission Rate in grams per brake horsepower-hour for each
15 affected engine shall be included in a federally-enforceable permit.

16 Section 5. Compliance Demonstration.

17 (1) Pursuant to the compliance plan required in Section 4, NOx emission reductions
18 shall be calculated according to the following criteria:

19 (a) For an affected engine [~~a Large NOx SIP Call Engine~~] to which a control device
20 is added, [~~or~~] a combustion modification is made or for reductions achieved pursuant to
21 Section 4(1)(e) after September 30, 1997, the NOx emission reductions shall equal the
22 difference between the Past NOx emission rate and the Projected NOx emission rate,
23 multiplied by the Projected operating hours [~~in tons, between the affected engine's~~

1 ~~projected 2007 base emissions and the affected engine's seasonal potential to emit at~~
2 ~~the controlled emission rate]~~ during the control period.

3 (b) For an affected engine that is removed from service after September 30, 1997,
4 and the facility's operating capacity, in brake horsepower-hours, equivalent to the
5 removed affected engine's projected utilization is replaced, in part or in total, during a
6 control period:

7 1. By a NOx emitting device installed after September 30, 1997, the NOx emission
8 reductions shall be the difference, in tons, between the removed affected engine's
9 projected 2007 base emissions and the replacement device's seasonal potential to emit
10 for the operating capacity, in brake horsepower-hours, equivalent to the portion of the
11 removed affected engine's projected utilization that the device will replace, not to
12 exceed one hundred (100) percent; or

13 2. By a device that does not emit NOx installed after September 30, 1997, the NOx
14 emission reductions shall be the removed affected engine's projected 2007 base
15 emissions, multiplied by the percentage projected from utilization of the replacement
16 device, not to exceed one hundred (100) percent; or

17 3. By a device that does not emit NOx, and a NOx emitting device is installed at the
18 removed affected engine's facility after the date that the device that does not emit NOx
19 was installed, the NOx emission reductions shall be the difference, in tons, between the
20 removed affected engine's projected 2007 base emissions, and the NOx emitting
21 device's seasonal potential to emit for its operating capacity, in tons, equivalent to the
22 portion of the removed affected engine's projected utilization that it will replace, not to
23 exceed one hundred (100) percent.

1 (2) The following shall not be considered NOx emission reductions for compliance
2 with this administrative regulation:

3 (a) A restriction on an affected engine's hours of operation during a control period,
4 including a prohibition from operating;

5 (b) A NOx emission limitation enforceable by the cabinet placed upon an affected
6 engine to which no control device was added, ~~[or]~~ combustion modification made or for
7 reductions achieved pursuant to Section 4(1)(e) after September 30, 1997;

8 (c) The removal of an affected engine from service if that affected engine is placed
9 into service at another location within Kentucky; or

10 (d) NOx emission reductions achieved at a facility that is not owned or operated by
11 the person responsible for demonstrating compliance with this administrative regulation.

12 (3) Demonstrability and enforceability of NOx emission reductions.

13 ~~[(a)]~~ NOx emission reductions, calculated in accordance with Section 5(1)(a) or (b),
14 shall be demonstrable and enforceable if:

15 (a) ~~[1-]~~ An hourly NOx emission limitation unit, grams per brake horsepower-hours, is
16 included in a permit enforceable by the cabinet for the affected engine or replacement
17 device that is to be operated during a control period;

18 (b) ~~[2-]~~ The hourly NOx emission limitation is equal to the hourly emission rate used
19 to calculate the NOx potential to emit for the affected engine or replacement device in
20 the compliance plan; and

21 (c) ~~[3-]~~ A performance test conducted in accordance with Section 6 of this
22 administrative regulation determines that the affected engine or the replacement device
23 is capable of complying with the hourly NOx emission limitation.

1 ~~[(b) For any affected engine removed from service, NOx emission reductions~~
2 ~~calculated in accordance with Section 5(1)(b) shall be demonstrable and enforceable if~~
3 ~~the applicable permit has been modified or revoked, so that the affected engine's~~
4 ~~authorization to operate ceases on or before the first day of the control period for which~~
5 ~~NOx emission reductions would be credited.]~~

6 (4) NOx emission reductions achieved to comply with this administrative regulation
7 shall not be considered creditable for compliance with any other applicable requirement
8 and shall not be considered a contemporaneous emission decrease for the purposes of
9 netting or offsets.

10 Section 6. Monitoring Requirements. An owner or operator of an affected engine
11 shall:

12 (1) Complete an initial performance test according to the requirements codified in
13 Appendix A to 40 C.F.R. Part 60, following the installation of emission controls required
14 to achieve the emissions limit in Section 3(1) of this administrative regulation.

15 (2) Perform periodic monitoring to yield reliable data from the relevant time period
16 that is representative of a source's compliance with the emissions limit in Section 3(1) of
17 this administrative regulation. Periodic monitoring shall include either:

18 (a) Performance tests consistent with the requirements of Appendix A to 40 C.F.R.
19 Part 60, or portable monitors using *ASTM D6522-00*, incorporated by reference in
20 Section 9 of this administrative regulation;

21 (b) A parametric monitoring program that specifies operating parameters, and their
22 ranges, that will provide that each affected engine's emissions are consistent with the
23 provisions of Section 3 of this administrative regulation;

1 (c) A predictive emissions measurement system that relies on automated data
2 collection from instruments; or

3 (d) A continuous emission monitoring system that complies with 40 C.F.R. Part 60 or
4 Part 75.

5 Section 7. Recordkeeping Requirements. An owner or operator subject to this
6 administrative regulation shall:

7 (1) Maintain all records necessary to demonstrate compliance with the provisions of
8 this administrative regulation for a period of two (2) calendar years where the affected
9 engine is located, and provide the records, upon request, to the cabinet and the U.S.
10 EPA.

11 (2) Maintain the following records for each affected engine:

12 (a) Identification and location of each affected engine;

13 (b) Calendar date of record;

14 (c) Number of hours the affected engine is operated during each control period
15 compared to the Projected Operating Hours;

16 (d) Type and quantity of fuel used; and

17 (e) Results of all compliance tests.

18 Section 8. Reporting Requirements. An owner or operator subject to the provisions
19 of this administrative regulation shall submit the required reports, compliance plans and
20 compliance test results to:

21 (1) Manager, Permit Review Branch, Kentucky Division for Air Quality, 803 Schenkel
22 Lane, Frankfort, Kentucky 40601, (502) 573-3382; and

23 (2) The appropriate Regional Office of the Division for Air Quality as follows:

1 (a) Ashland Regional Office, 1550 Wolohan Drive, Suite 1, Ashland, Kentucky
2 41102, (606) 929-5285;

3 (b) Bowling Green Regional Office, 1508 Westen Avenue, Bowling Green, Kentucky
4 42104, (270) 746-7475;

5 (c) Florence Regional Office, 8020 Veterans Memorial Drive, Suite 110, Florence,
6 Kentucky 41042, (859) 525-4923;

7 (d) Hazard Regional Office, 233 Birch Street, Suite 2, Hazard, Kentucky 41701,
8 (606) 435-6022;

9 (e) London Regional Office, 875 South Main Street, London, Kentucky 40741, (606)
10 878-0157;

11 (f) Owensboro Regional Office, 3032 Alvey Park Drive, W., Suite 700, Owensboro,
12 Kentucky 42303, (270) 687-7304; or

13 (g) Paducah Regional Office, 130 Eagle Nest Drive, Paducah, Kentucky 42003,
14 (270) 898-8468.

15 Section 9. Incorporation by Reference. (1) The following material is incorporated by
16 reference: "ASTM D6522-00, Standard Test Method for Determination of Nitrogen
17 Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-
18 Fired Reciprocating Engines, Combustion Turbines, Boilers, and process Heaters Using
19 Portable Analyzers¹, Book of ASTM Standards, February 10, 2000 and April 2000."

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4 <http://www.astm.org/>.

Date

11-14-2005

John D. Clay
Sec.

LaJuana S. Wilcher, Secretary
Environmental and Public
Protection Cabinet

REGULATORY IMPACT ANALYSIS AND TIERING STATEMENT

Contact Person: Gerry Ennis

(1) Provide a brief summary of:

(a) What this administrative regulation does: This administrative regulation establishes the requirements for the control of nitrogen oxides (NOx) emissions from any stationary internal combustion engine that is a large NOx SIP Call engine or other stationary internal combustion engine that is subject to NOx control under a compliance plan.

(b) The necessity of this administrative regulation: This administrative regulation is necessary to comply with the requirements of KRS 224.10-100 and the federal NOx SIP Call which requires Alabama, Connecticut, Delaware, Illinois, Indiana, Kentucky, Massachusetts, Maryland, Michigan, North Carolina, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Virginia and West Virginia, to control NOx emissions to alleviate violations of the federal ozone NAAQS in downwind states.

(c) How this administrative regulation conforms to the content of the authorizing statutes: KRS 224.10-100(5) requires the cabinet to promulgate administrative regulations for the prevention, abatement, and control of air pollution. This regulation is proposed in order to reduce the regional transport of NOx emissions.

(d) How this administrative regulation currently assists or will assist in the effective administration of the statutes: This administrative regulation will reduce NOx emissions resulting in the protection of human health and the environment.

(2) If this is an amendment to an existing administrative regulation, provide a brief summary of:

(a) How the amendment will change this existing administrative regulation: This administrative regulation does not amend any existing administrative regulation.

(b) The necessity of the amendment to this administrative regulation: This administrative regulation does not amend any existing administrative regulation.

(c) How the amendment conforms to the content of the authorizing statutes: This administrative regulation does not amend any existing administrative regulation.

(d) How the amendment will assist in the effective administration of statutes: This administrative regulation does not amend any existing administrative regulation.

(3) List the type and number of individuals, businesses, organizations, or state and local governments affected by this administrative regulation. Ten (10) units at six (6) Kentucky facilities are listed as large stationary internal combustion engines in the NOx SIP Call Inventory and are affected by this administrative regulation.

(4) Provide an assessment of how the above group or groups will be impacted by either the implementation of this administrative regulation, if new, or by the change if it is an amendment: This administrative regulation establishes the NOx emission requirements for any stationary internal combustion engine that is a large

NOx SIP Call engine or other stationary internal combustion engine that is subject to NOx control under a compliance plan.

- (5) **Provide an estimate of how much it will cost to implement this administrative regulation:**
- (a) **Initially:** The cabinet will not incur any additional costs for the implementation of this administrative regulation.
 - (b) **On a continuing basis:** There will not be any continuing costs for the implementation of this administrative regulation.
- (6) **What is the source of the funding to be used for the implementation and enforcement of this administrative regulation:** The cabinet's current operating budget will be used for the implementation and enforcement of this administrative regulation.
- (7) **Provide an assessment of whether an increase in fees or funding will be necessary to implement this administrative regulation, if new, or by the change if it is an amendment.** No increase in fees or funding is necessary to implement the proposed administrative regulation.
- (8) **State whether or not this administrative regulation establishes any fees or directly or indirectly increases any fees.** This administrative regulation does not establish, nor does it directly or indirectly increase any fees.
- (9) **TIERING:** Is tiering applied? No.

FEDERAL MANDATE ANALYSIS COMPARISON

- 1. Federal statute or regulation constituting the federal mandate.**
On April 21, 2004, Phase II of the federal NOx SIP Call was published in the Federal Register (69 FR 21604). The Phase II revisions include standards for controlling NOx emissions from stationary internal combustion engines subject to emission limitations or NOx control under a compliance plan.
- 2. State compliance standards.** The state compliance standards are found in KRS 224.10-100(5).
- 3. Minimum or uniform standards contained in the federal mandate.** The federal regulations require large stationary internal combustion engines to reduce NOx emissions by eighty-two percent (82%).
- 4. Will this administrative regulation impose stricter requirements, or additional or different responsibilities or requirements, than those required by the federal mandate?** No.
- 5. Justification for the imposition of the stricter standard, or additional or different responsibilities or requirements.** This administrative regulation will not impose stricter standards, or additional or different responsibilities or requirements than those required by the federal mandate.

Summary of Material
Incorporated by Reference
401 KAR 51:150

ASTM D 6522-00, Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and process Heaters Using Portable Analyzers¹, as published in the Book of ASTM Standards, February 10, 2000 and April 2000, is incorporated by reference.

Revisions to Phase II of the NO_x SIP Call, published in the *Federal Register* (69 Fed. Reg. 21604, April 21, 2004), requires regional control of NO_x emissions and provides standards for large stationary internal combustion engines.

Implementing these standards will require no additional state funding. The material incorporated by reference consists of 9 pages in one volume and contains the following:

1. Scope
 2. Referenced Documents
 3. Terminology
 4. Summary of Test Method
 5. Significance and Use
 6. Interferences
 7. Apparatus
 8. Reagents and Materials
 9. Preparation of Apparatus
 10. Procedure
 11. Calculation
 12. Report
 13. Precision and Bias
 14. Keywords
- Bibliography

STATEMENT OF CONSIDERATION RELATING TO

401 KAR 51:150. Amended After Comments

401 KAR 51:160. Not Amended After Comments

Environmental and Public Protection Cabinet Department for Environmental Protection Division for Air Quality

- (1) A public hearing on 401 KAR 51:150 and 401 KAR 51:160 was held on October 21, 2005, at 10:00 AM, at the offices of the Division for Air Quality, 803 Schenkel Lane, Frankfort, Kentucky 40601.
- (2) The following people attended this public hearing or submitted comments:

<u>Name and Title</u>	<u>Organization</u>
Kelly R. Carmichael, Manager NiSource, Inc.	For Columbia Gulf Transmission
Katrina Chruscik, Staff Engineer EIPaso Corporation	For ANR Pipeline and Tennessee Gas Pipeline Companies
Kay T. Prince, Chief Air Planning Branch	U.S. EPA, Region 4

- (3) The following people from the promulgating administrative body attended this public hearing or responded to the written comments:

Sean Alteri, Environmental Control Supervisor
Martin Luther, Environmental Scientist II
*Gerry Ennis, Environmental Technologist III

* Agency Representative

Summary of Comments and Responses

401 KAR 51:150. NOx requirements for stationary internal combustion engines.

- (1) **Subject Matter: Definition**
- (a) **Comment: Definition of "Affected engine", Section 1(1)**
The commentor suggests that the definition of "affected engine" should include turbines in the event a company wants to include turbines in the compliance plan as a control option.
Kelly R Carmichael, NiSource
- (b) **Response:**
The cabinet concurs. Section 1(1) is amended accordingly.
- (2) **Subject Matter: Definition**
- (a) **Comment: Definition of "Past NOx emission rate"**
The commentor states the "Past NOx emission rate" is used in Section 3 to establish the baseline by which a "Large NOx SIP Call engine" must reduce NOx by 82%. The commentor requests that a source should be allowed to use the uncontrolled "NOx SIP Call engine inventory" emission factor whether or not performance testing is available if the performance testing would result in control requirements below 3 g/bhp-hr.
Kelly R Carmichael, NiSource
- (b) **Response:**
The cabinet does not concur. The "Past NOx emission rate" is already established in the NOx SIP Call Inventory in accordance with Section 1(8)(b).
- (3) **Subject Matter: Definition**
- (a) **Comment: Definition of "Projected NOx emission rate"**
The commentor requests that additional language be added in the event controls are not installed on a unit; however, the unit is included in the compliance plan. The commentor suggests that emission rate equal the "Past NOx emission rate" if no controls are installed on an affected engine.
Kelly R Carmichael, NiSource
- (b) **Response:**
The cabinet concurs. If compliance is demonstrated in accordance with Section 4, control equipment may not be necessary on each affected engine. Section 1(13) is amended accordingly.
- (4) **Subject Matter: Compliance**
- (a) **Comment: Compliance plan**
The commentor requests that a provision be added that allows credit for decreases in NOx emissions due to reductions from shifting historic load

capacity from an uncontrolled engine to a controlled engine, electric motor or turbine in the compliance plan. The commentor correctly states that the provision shall include language that the owner or operator must demonstrate to the satisfaction of the cabinet that a quantifiable net reduction in NOx emissions has occurred or will occur due to a direct shift of ozone season load capacity from an uncontrolled engine to a controlled engine, electric motor or turbine.

Kelly R Carmichael, NiSource

Katrina Chruscik, ElPaso Corporation

(b) Response:

The cabinet concurs. The provision requested by the commentor follows the guidance provided by the U.S. EPA. Also, similar provisions have been allowed by the U.S. EPA in other NOx SIP Call Phase II state implementation plans. Section 4 is amended accordingly.

(5) Subject Matter: Compliance

(a) Comment: Compliance Demonstration

The commentor requests that a source be allowed to demonstrate compliance using credit for decreases in NOx emissions due to reductions from shifting historic load capacity from an uncontrolled engine to a controlled engine, electric motor or turbine.

Kelly R Carmichael, NiSource

Katrina Chruscik, ElPaso Corporation

(b) Response:

The cabinet concurs. Sections 5(1)(a), 5(2)(b), and 5(3)(a)1 are amended accordingly. Please refer to the response to Comment #(4).

(6) Subject Matter: Compliance

(a) Comment: Compliance demonstration

The commentor requests that a provision be added to include a facility-wide federally enforceable permit limit during the ozone season to demonstrate compliance with the proposed rule. The commentor states that "this will assure that the difference between the NOx SIP Call Inventory and the facility-wide emissions cap results in the 'Facility season NOx 2007 tonnage reduction' for the facility and/or all facilities in the State of Kentucky".

Kelly R Carmichael, NiSource

(b) Response:

The cabinet concurs in part. A facility-wide limitation can be included in the compliance plan. The proposed administrative regulation provides sources with the flexibility to develop a compliance plan. The sources can select a variety of control measures to apply at their multiple emission units in the State. However, in accordance with U.S. EPA guidance, each

emission rate limit must be reflected in a federally enforceable permit, which is the enforcement mechanism for the compliance plan.

(7) Subject Matter: Compliance

(a) Comment: Compliance Demonstration

The commentor requests that a provision be added to allow the facility to demonstrate compliance with its facility-wide emissions limitation by multiplying each of the affected engines' ozone season brake horsepower operating hours by the corresponding projected NOx emission rate and summing the facility emissions in tons per ozone season.

Kelly R Carmichael, NiSource

(b) Response:

The cabinet concurs in part. This provides a methodology to determine facility emissions and demonstrate that these emissions minus the NOx SIP Call inventory emissions results in the reductions required under the rule. However, the specific emission rate limit for each affected engine established in the compliance plan and included in a federally enforceable permit shall be complied with by the source.

(8) Subject Matter: Compliance

(a) Comment: Compliance Demonstration

The commentor explains that the methodology of calculating NOx reductions presented in Section 5, *Compliance Demonstration*, differs from the numerical demonstration described in Section 4(1)(e)5. The commentor recommends that Section 5 be modified to be consistent with Section 4.

Katrina Chruscik, ElPaso Corporation

(b) Response:

The cabinet concurs. Section 5(1)(a) is amended accordingly.

(9) Subject Matter: Compliance

(a) Comment: Compliance Demonstration

The commentor requests that an hourly NOx emission limitation expression in pounds per hour also be included in the federally enforceable permit in addition to the grams per brake horsepower-hour limitation that is required to be included in the federally enforceable permit.

Katrina Chruscik, ElPaso Corporation

(b) Response:

The cabinet concurs that the hourly NOx emission limitation expressed in pounds per hour can also be included in the compliance plan and federally enforceable permit. However, the grams per brake horsepower-hour limitation is required in the federally enforceable permit.

(10) Subject Matter: Compliance

(a) Comment: Compliance Demonstration

The commentor states that Section 5(3)(b) allows for NOx emission reduction credits from engines removed from service, also known as "retired engines". The commentor further states that U.S. EPA guidance details that credits from retired engines are not allowed.

Kay T. Prince, U.S. EPA

(b) Response:

The cabinet concurs. The provision of Section 5(3)(b) is removed from the proposed administrative regulation.

(11) Subject Matter: Recordkeeping

(a) Comment: Records of operating hours

The commentor proposes that the requirement specified in Section 7(2)(c) to maintain records of operating hours during each control period for each affected engine be removed. The commentor explains that Section 5(3) does not list operating hour records as a requirement for demonstrability and enforceability of NOx emission reductions. The commentor proposes that copies of compliance plans and relevant permits be maintained by the facilities instead of maintaining records of operating hours.

Katrina Chruscik, ElPaso Corporation

(b) Response:

The cabinet does not concur. The compliance plan requires the projected ozone season hours of operation and supporting documentation to be included. Also, the cabinet may review the information, along with information related to other NOx SIP Call measures, to assess consistency with the statewide NOx budget.

(12) Subject Matter: Reporting

(a) Comment: Periodic Reports

The commentor requests that the reference to reports be removed from Section 8 to clarify that no periodic reports will be required.

Katrina Chruscik, ElPaso Corporation

(b) Response:

The cabinet does not concur. Section 8 does not imply that periodic reports are required. Rather, Section 8 details where the required reports, compliance plans, and compliance test results shall be submitted.

Summary of Statement of Consideration and Action Taken by Promulgating Body

General Summary

On October 21, 2005, the Environmental and Public Protection Cabinet conducted a public hearing to receive public comments on two administrative regulations listed below. This Statement of Consideration, filed with the Legislative Research Commission in accordance with the requirements of KRS 13A, relates to these administrative regulations.

- 401 KAR 51:150. NOx requirements for stationary internal combustion engines.
- 401 KAR 51:160. NOx requirements for large utility and industrial boilers.

The two administrative regulations are also proposed to be included in the Kentucky State Implementation Plan.

The proposed administrative regulations were published in the October 1, 2005 Administrative Register of Kentucky, and a hearing notice was placed in ten newspapers throughout the Commonwealth. The public hearing notice was mailed to over 900 individuals who have requested to be placed on a mailing list maintained by the cabinet, and copies of the hearing notice and proposed regulations were made available for public inspection at the Division for Air Quality's field offices, the Louisville Metro Air Pollution Control District, and selected County Clerk offices. Copies of the proposed regulations were also provided to the Environmental Quality Commission for review and comment.

This document presents a summary of all relevant comments submitted and the Division for Air Quality's responses.

Summary of Comments Received

The Environmental and Public Protection Cabinet received three (3) written statements regarding the proposed administrative regulation, 401 KAR 51:150 and no comments on the proposed administrative regulation, 401 KAR 51:160. The statements that were received contained twelve (12) separate comments on the following subjects:

Definitions	3 comments
Compliance	7 comments
Recordkeeping	1 comment
Reporting	1 comment

Summary of Actions Taken

The following actions were taken in response to the comments received:

- 401 KAR 51:150, Section 1(1) is amended to make the definition consistent with federal guidance.
- 401 KAR 51:150, Section 1(13) is amended to clarify the meaning of a definition.
- 401 KAR 51:150, Section 4(1) is amended to conform to federal guidance.
- 401 KAR 51:150, Section 5 is amended to make the compliance demonstration consistent.

Implications for Future Regulatory Action

There are no implications for future regulatory action.

Amendments to the Administrative Regulation

Page 1

Section 1(1)

Line 18

After "combustion engine", insert "or turbine".

Page 1

Section 1(1)

Line 20

After "combustion engine", insert "or turbine".

Page 3

Section 1(13)

Line 23

After "affected engine", insert the following:
or the Past NOx emission rate if controls are not installed on an affected engine.

Page 4

Section 4

Line 22

After "that engine", insert "in".

Page 5

Section 4(1)(d)

Line 9

After "Engine Inventory;", insert the following:
(e) Include credit for decreases in NOx emissions due to reductions from shifting historic load capacity from an uncontrolled engine to a controlled engine, electric motor or turbine. The owner or operator shall demonstrate to the satisfaction of the cabinet that a quantifiable net reduction in NOx

emissions has occurred or will occur due to a direct shift of ozone season load capacity from an uncontrolled engine to a controlled engine, electric motor or turbine; and

Delete "and".

Page 5

Section 4(1)(e)

Line 10

Before "(e) Provide", insert "(f)".

Delete "(e)".

Page 5

Section 4(1)(e)

Line 11

After "A list of", insert "affected".

Page 5

Section 4(1)(e)

Line 21

After "from all", insert "affected".

Page 6

Section 5(1)(a)

Line 10

After "For", insert "an affected engine".

Delete "a Large NOx SIP Call Engine"

Page 6

Section 5(1)(a)

Line 10

After "is added", insert "1".

Delete "or"

Page 6

Section 5(1)(a)

Line 11

After "is made", insert the following:

or for reductions achieved pursuant to Section 4(1)(e)

Page 6

Section 5(1)(a)

Line 12

After "difference", insert the following:

between the Past NOx emission rate and the Projected NOx emission rate, multiplied by the Projected operating hours

Delete the following:

, in tons, between the affected engine's projected 2007 base emissions
and the affected engine's seasonal potential to emit at the controlled rate

Page 7

Section 5(2)(b)

Line 19

After "was added", insert "1".
Delete "or"

Page 7

Section 5(2)(b)

Line 19

After "modification made", insert the following:
or for reductions achieved pursuant to Section 4(1)(e)

Page 8

Section 5(3)

Line 4

After "reductions.", delete (a).

Page 8

Section 5(3)

Line 6

Before "An hourly", insert "(a)".
Delete "1."

Page 8

Section 5(3)

Line 9

Before "The hourly", insert "(b)".
Delete "2."

Page 8

Section 5(3)

Line 12

Before "A performance test", insert "(c)".
Delete "3."

Page 8

Section 5(3)(b)

Line 15

Delete Section 5(3)(b) in its entirety.

